# **VDR** SERIES

**VDR-10** 

**VDR-12** 

USER'S MANUAL



DSP-Controlled Subwoofers



### IMPORTANT SAFETY INSTRUCTIONS



# CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN





#### **Caution**

To reduce the risk of electric shock, do not remove cover (or back). No user-serviceable parts inside. Refer servicing to qualified service personnel.

The lightning flash with arrowhead symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the subwoofer.

- 1. Read Instructions All safety and operating instructions should be read before the product is operated.
- 2. **Retain Instructions** The safety and operating instructions should be retained for future reference.
- 3. **Heed Warnings** All warnings on the product and in the operating instructions should be adhered to.
- 4. Follow Instructions All operating and use instructions should be followed.
- 5. **Water and Moisture** The product should not be used near water for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, near a swimming pool or the like.
- Carts and Stands The product should be used only with a cart or stand recommended by the manufacturer.
- Wall or Ceiling Mounting The product should be mounted to a wall or ceiling only as recommended by the manufacturer.
- 8. Ventilation The product should be situated so that its location or position does not interfere with its proper ventilation. For example, the product should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or placed in a built-in installation such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
- Heat The product should be situated away from heat sources such as radiators, heat registers, stoves, or other
  products that produce heat.
- Power Sources The product should be connected to a power supply only of the type described in the operating
  instructions or as marked on the product.
- 11. **Grounding or Polarization** This product may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
- 12. **Power-Cord Protection** Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point at which they exit from the product.
- 13. **Cleaning** The product should be cleaned only as recommended by the manufacturer.
- 14. Nonuse Periods The power cord of the product should be unplugged from the outlet when left unused for a long period of time.
- 15. **Object and Liquid Entry** Care should be taken so that objects do not fall and liquids are not spilled onto the enclosure.
- 16. Damage Requiring Service The product should be serviced by qualified service personnel when:
  - a. The power-supply cord or plug has been damaged.
  - b. Objects have fallen or liquid has been spilled into the product.
  - c. The product has been exposed to rain.
  - d. The product does not appear to operate normally or exhibits a marked change in performance.
  - e. The product has been dropped or damaged.
- 17. **Servicing** The user should not attempt to service the product beyond what is described in the operating instructions. All other servicing should be referred to qualified service personnel. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as a power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- 18. **Lightning** For added protection for the product during a lightning storm or when it is left unattended and unused for long periods of time, unplug it from the wall outlet.
- 19. **Overloading** Do not overload wall outlets, extension cords or integral convenience receptacles as this can result in a risk of fire or electric shock.
- 20. Attachments Only use attachments and accessories specified by the manufacturer.
- 21. **Voltage** Insure that the subwoofer is only connected to the rated source voltage. Do not connect the 120-volt version to 230-volts or vice-versa. This will result in damage to the subwoofer and possible injury to the user.

CAUTION: To prevent electrical shock, match wide blade of plug to wide slot, fully inserted.

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#### CONGRATULATIONS!

Congratulations on your purchase of a Velodyne VDR subwoofer system. This system represents the state-of-the-art in home audio reproduction and will provide you with years of listening pleasure when properly cared for. Read and follow this instruction manual to insure safe and proper system connection and operation.

#### Caution!

Please observe the following instructions to insure safe and proper system operation.

**Note:** Do not leave unit in direct sunlight or use in high humidity environments!!!

#### Warning!

To prevent fire or shock hazard, do not expose this equipment to rain or moisture. To avoid electrical shock, do not open speaker enclosure or amp chassis cover. Please observe all warnings on the equipment itself. There are no user serviceable parts inside. Please refer all service questions to your authorized Velodyne dealer.

#### Prior to Installation:

Please unpack the system carefully. This unit is heavy. Use caution when lifting or moving to avoid injury. Please save the carton and all packaging materials for future use. Packing this unit in any other carton may result in severe damage when shipping. Record the serial number in the space provided on page 14 for future reference.

#### **Product Features**

- DSP-controlled
- Remote control
- 4 selectable presets for customized listening mode
- Night-mode setting
- Mute control
- Built-in 200 watt (RMS) power amplifier
- Adjustable (60 to 150 Hz) low-pass crossover with Subwoofer Direct setting
- Speaker-level inputs and outputs
- 80 or 100 Hz high-pass crossover
- Line-level inputs and outputs
- Signal sensing auto turn on/off with bypass option
- Variable volume control
- Selectable phase control (0, 90, 180, or 270 degrees)
- Dual staggered low-pass crossover; 12 dB/octave initial, 24 dB/octave ultimate
- Anti-clipping circuit
- Over excursion protection
- Slot loaded design

#### Placement

The first step in installing your new VDR is to determine where it will be placed in the room. Unpack the system carefully and use the following guidelines in order to find the best room placement option.

True subwoofers operate at extremely low frequencies which are primarily omni-directional. Keep in mind that frequency response and output level can be drastically influenced by placement, depending on the acoustic properties of the listening room. To obtain optimum output from your subwoofer, place it within a foot of a corner. This location will offer the greatest output levels and optimum low frequency extension. If at all possible, your subwoofer should be placed along a wall. The worst location for a subwoofer is typically far away from any walls and close to the center of your room. Avoid these locations when possible. When using a pair of Velodyne subwoofers in stereo, it is preferable to place each subwoofer near the satellite of the same channel.

Depending on the size and type of furnishings in the room, perfect placement may not be possible. Finding the best location within your environment will likely require some experimentation. We suggest you experiment with the location during setup to find what sounds best to you when seated in your typical listening position.

Regardless of where you install your Velodyne subwoofer, it must remain in an upright position (woofer facing forward). Using, shipping or storing the subwoofer in any other position for an extended period of time may result in damage to the unit not covered by warranty.

#### Caution!

This subwoofer has electronics built into the cabinet. Do not place the cabinet next to sources of heat such as furnace registers, radiators, etc. Do not place the unit near sources of excessive moisture, such as evaporative coolers, humidifiers, etc. The power cord should be routed in such a way that it will not be walked on, pinched or compressed in any way that could result in damaging the insulation or wire.

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#### INSTALLATION

Your new subwoofer is equipped with speaker-level and line-level inputs. Use the LINE LEVEL jacks when connecting your subwoofer to a pre-amp, signal processor (such as LFE out), line-level crossover, or receiver with pre-amp level outputs. When using the line level jacks, some receivers may not provide enough signal to have the unit's auto-on feature operate properly. Additionally, this lack of signal may also cause the subwoofer to produce less output than it is capable of.

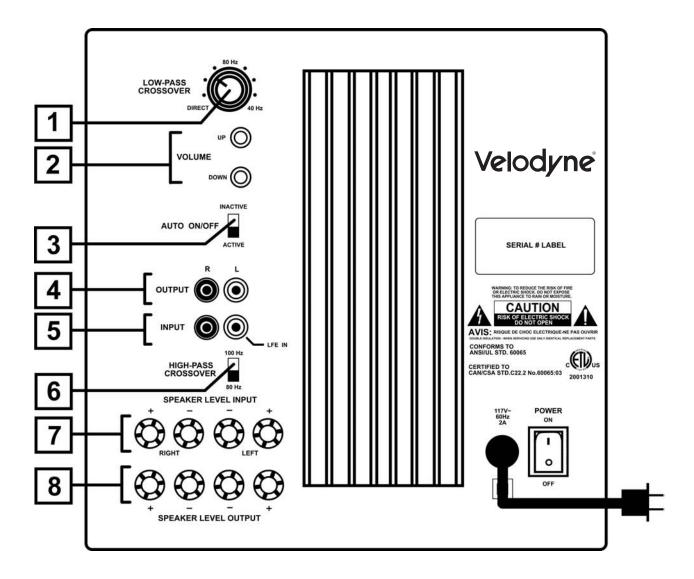


Figure 1. VDR Rear Panel Connections

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#### REAR PANEL CONNECTIONS

Figure 1 shows the connections on the rear panel of the VDR.

Following are brief descriptions of the connections described in Figure 1. More detail on these connections can be found on the next page.

#### (1) LOW-PASS CROSSOVER

Use this knob to select the high-frequency range at which you wish to cut off the signal to the subwoofer. When the knob is turned all the way to the left (counter-clockwise), the Subwoofer Direct feature is invoked and the subwoofer plays all frequencies up to 200 Hz.

#### (2) VOLUME Control

This control allows you to balance the output from the subwoofer to the main speakers in your system. This control should be set to achieve similar volume level from between both the main speakers and subwoofer. When pressing volume up or down, the speed at which the power light blinks indicates subwoofer volume - the faster the blinking, the louder the unit plays. After the volume blinking stops, the unit will blink out the actual volume number. Slower blinks represent tens, and faster blinks represent ones. So, for example, if the volume were set at 34, after the rapid blinking stopped you would observe three slow blinks followed by four faster blinks, indicating a volume of 34.

**Note**: Volume is also controllable by using the supplied remote, when defaults are restored. The default is 30 out of 100.

#### (3) AUTO ON/OFF Switch

Use this switch to select between auto-on (active) and constant on (inactive) operation.

#### (4) LINE OUTPUT

Connect these jacks to the LINE IN of the power amp or receiver input to use the VDR internal high pass crossover. See below for a more detailed explanation of this crossover.

#### (5) LINE INPUT/LFE Input

Connect these jacks to the LINE OUT preamp output, LFE output, or subwoofer output jacks of your receiver/processor. If using the LFE output from your receiver or processor, plug the single cable into the "L" – LFE input or, for more signal, use a "Y" connector (not included) and feed the signal into both "R" and "L" inputs.

#### (6) HIGH PASS CROSSOVER Switch

This switch selects the frequency for the high pass crossover. This crossover is functional on both line and speaker-level outputs. Smaller speakers with limited low frequency output may perform better using the higher 100 Hz setting that will reduce the low frequencies sent to them. Larger speakers with greater low frequency output may be able to handle the 80 Hz setting without strain.

#### (7) SPEAKER LEVEL INPUT Terminals

Connect these input terminals to the speaker output terminals of your amplifier or receiver. If you use this method of connection, when you go to the receiver speaker set up menu, make sure you select the large speaker option

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#### (8) SPEAKER LEVEL OUTPUT Terminals

Sends a crossed-over speaker-level signal to the front speakers. See below for a more detailed explanation of this crossover.

#### REAR PANEL CONNECTIONS - DETAILED EXPLANATIONS

Your new subwoofer is equipped with both speaker-level and line-level inputs. Use the RCA/Phono type "INPUT" jacks when connecting your subwoofer to a pre-amp, signal processor, or line-level crossover. The "SPEAKER LEVEL INPUT" jacks connect directly to the speaker outputs of an integrated amplifier or receiver. Your amplifier section will notice no additional loading effects when you use these inputs because of their high impedance.

#### Note:

Do not use both the RCA/Phono "INPUT" connections and "SPEAKER LEVEL INPUT" connections simultaneously.

#### Low-Pass Crossover

Both sets of inputs sum the left and right channels together and the resulting signal is passed through an adjustable low-pass crossover before being amplified. The crossover control allows you to adjust the upper limit of the subwoofer's frequency response from 60 to 150 Hz. The subwoofer's response will begin rolling off above the frequency you set this control to.

You should set the crossover frequency to obtain a smooth and seamless transition from the subwoofer to the main speakers in your system. If your main speakers are smaller units with limited low frequency output, you may wish to choose a higher frequency (such as 100-120 Hz) than you would with larger speakers which have greater low frequency output. With larger speakers, you might start with this control set lower, such as 80 Hz.

#### Subwoofer Direct

Subwoofer Direct is a setting on the low-pass crossover knob and will allow frequencies up to 200 Hz into the subwoofer. See below for a more detailed explanation of this feature.

#### Speaker Level Output/Line Level Output

When connected in this fashion, your satellite speakers will be crossed over at 80 Hz. This removes the lower bass from your satellites, enabling them to do a better job reproducing high frequencies and giving your receiver's amp more headroom (up to 50% more power).

You may also connect your satellites directly to your receiver or amplifier along with the subwoofer if you wish to bypass this crossover.

#### Caution!!!

To avoid damage to your main amplifier, be sure to maintain correct polarity when making all connections. Red (positive) to red, and black (negative) to black. Be sure that all connections are tight, and that there are no loose strands or frayed wires.

#### Power Switch

The master power switch is located on the lower right half of the unit. This rocker style switch is the main on/off for the unit. This switch should be set to position 1 for on (up), O for off (down).

# A Word About Your Receiver's Crossover and the VDR Crossover

Your Velodyne VDR subwoofer is designed to operate using the full range audio signal for input when using the built-in crossover (controlled by the dial on the back panel). Many home theater processors/receivers (Dolby Digital®, DTS®, THX®) have a "subwoofer out" jack that performs this same function and are designed to be used with a powered subwoofer.

In these installations, you may want to bypass the crossover in either the processor or the Velodyne subwoofer. In some cases, you may want to use BOTH crossovers. To do this, you can use both your processor's crossover and the one internal to the Velodyne sub. You should stagger the frequencies (i.e., 120 Hz subwoofer, 80 Hz processor) for best results.

To bypass the subwoofer's internal crossover when the unit is being fed a low pass signal from another crossover, simply locate the knob marked "LOW-PASS CROSSOVER" on the rear panel of the subwoofer and turn it counterclockwise to the "DIRECT" position. This will eliminate the internal crossover from the signal path.

#### Note:

When not using an external crossover, you should use the built-in crossover for optimal performance. When using a single RCA sub out from the processor, it does not matter which line level input (L/R) is used.

#### INTERCONNECT CABLES

When installing your new Velodyne subwoofer using the line-level connections, you should always use shielded phono cables. There are many decent cables available today, most any of which will work perfectly well. We do recommend that you keep the length of cable as short as possible to avoid any potential noise problems.

When using speaker level connections, use a quality speaker cable that mates well with the connectors (at least 14-gauge). Be very careful to avoid any loose or frayed strands that could result in a short, causing a dangerous condition and possible damage to your unit. Cables of extremely large size are typically not required. Extremely large gauge wire may not properly fit in the binding posts, resulting in a poor connection and possible short circuits.

#### Caution!

This subwoofer has electronics built into the cabinet. Do not place the cabinet next to sources of heat such as furnace registers, radiators, etc. Do not place the unit near sources of excessive moisture, such as evaporative coolers, humidifiers, etc. The power cord should be routed in such a way that it will not be walked on, pinched, or compressed in any way that could result in damaging the insulation or wire.

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#### USAGE

This section addresses usage of your VDR subwoofer.

#### Remote Control

The features of the VDR remote control are listed below.

- POWER This button forces your VDR unit into standby mode.
   The woofer will not play and the LED will turn off. The unit will remain in this mode until the POWER button is pressed again.
   To fully deactivate (i.e. power down) the unit, turn off the power switch on the back panel.
- **MUTE** This button mutes the subwoofer. The light on the subwoofer will blink slowly if the unit is muted. To unmute the subwoofer, press the MUTE button again.
- PHASE These buttons allow you to optimize the subwoofer performance for the location and your listening position. Select the switch position at which you hear the most bass. The light will blink according to the following schedule:



Figure 2: VDR Remote.

O degrees 1 blink 90 degrees 2 blinks 180 degrees 3 blinks 270 degrees 4 blinks

- **LIGHT** If you wish, you can deactivate the blue front panel light on your VDR unit. To do this, press the LIGHT button on your remote. The light will turn off. To reactivate the light, press the LIGHT button again.
- **NIGHT** Night mode limits the maximum output of the subwoofer for later night listening or to be more considerate of close neighbors. Press the night button to turn the night mode feature on or off. Night mode, when active, is indicated by the reduced intensity of the light.
- **VOLUME Control** This control allows you to balance the output from the subwoofer to the main speakers in your system. This control should be set to achieve similar volume level from between both the main speakers and subwoofer. When pressing volume up or down, the speed at which the power light blinks indicates subwoofer volume the faster the blinking, the louder the unit plays. after the volume blinking stops. the unit will blink out the actual volume number. Slower blinks represent tens, and faster blinks represent ones. So, for example, if the volume were set at 34, after the rapid blinking stopped you would observe three slow blinks followed by four faster blinks, indicating a volume of 34.

**Note:** The volume can also be adjusted via the buttons on the back panel of the subwoofer. These buttons have the same effect as pressing the up and down volume buttons on your remote. The unit comes preset from the factory with the volume set at 30% of maximum setting.

• **PRESETS** — There are four listening presets, consisting of Movies, R&B – Rock, Jazz – Classical, and Games. The presets provide the following characteristics for bass reproduction:

Movies: Maximum output and impact for explosions and other

action adventure movie content.

R&B – Rock: Provides the driving bass found in today's rock music.

Jazz - Classical: The tightest, cleanest, lowest distortion bass. The flattest frequency

response of the four presets.

Games: Maximum loudness available for the impact of video games.

The following table indicates musical style and which preset is recommended for it.

MUSICAL STYLE	SUGGESTED PRESET
Action Adventure Movies	Movies
Country – Rock	R&B – Rock
Country – Soft	Jazz – Classical
Folk	Jazz – Classical
Indie Music	R&B – Rock
Pop	R&B – Rock
Rock	R&B – Rock
Alternative Rock	Jazz – Classical
Blues	Jazz – Classical
Broadway and Vocalists	Jazz – Classical
Children's Music	Jazz – Classical
Christian and Gospel	Jazz – Classical
Classic Rock	R&B – Rock
Classical	Jazz – Classical
Dance and DJ	R&B – Rock
Hard Rock and Metal	R&B – Rock
Latin Music	R&B – Rock
Miscellaneous	Jazz – Classical
Movies – Non-Action Adventure	Jazz – Classical
New Age	Jazz – Classical
Opera and Vocal	Jazz – Classical
R&B	R&B – Rock
Rap and Hip-Hop	R&B – Rock
Soundtracks	R&B – Rock or Jazz – Classical
Video Games	Games

Each preset has its own characteristics with respect to subsonic filter, volume differential and a single equalizer (EQ) in order to optimize the listening mode for the preset.

The following table shows the settings for the various presets:

Preset	Subsonic Filter Frequency	EQ Frequency	EQ Level	Volume Differential
Movies	25 Hz	35 Hz	+5 dB	+5 dB
R&B - Rock	28 Hz	55 Hz	+1 dB	+1 dB
Jazz - Classical (Reference)	15 Hz	N/A	N/A	N/A
Games	34 Hz	62	+4 dB	+4 dB

#### Restore Defaults

There is a feature that allows you to restore default settings for your VDR subwoofer. By pressing presets in EXACTLY the following order on the remote, the unit's power light will blink indicating that you have restored defaults.

- 1. Movies
- 2. R&B Rock
- 3. Jazz Classical
- 4. Games
- 5. Games
- 6. Jazz Classical
- 7. R&B Rock
- 8. Movies

When you press the presets in the above order, the power light will blink three times indicating that you have restored defaults. The unit's volume is reset to level 30 out of 100. Be sure to check the status of the Auto On/Off function after restoring defaults.

#### **CARE OF YOUR SUBWOOFER**

Your Velodyne subwoofer does not require any regular maintenance. Normal dusting or cleaning of the surface for appearance purposes is all that is required. We suggest you avoid any harsh detergents or chemicals when cleaning the cabinet. Abrasives, detergents, or cleaning solutions may damage the finish on the cabinet. We recommend using only a damp cloth to clean the cabinet.

During normal conditions, your new subwoofer may be left on continuously without any problems. Using the Auto on/off function, the unit will automatically turn on the unit when a signal is present at the inputs and turn off after several minutes when there is no longer any signal at the inputs.

#### PROTECTION CIRCUITRY

Your new subwoofer is equipped with circuitry to provide maximum performance with greatest reliability.

The unit is protected against:

- 1) Overheating the amplifier.
- 2) Excessive drop in power line voltage.

If either of the above should happen, you should reduce the volume setting or shut the unit off until normal operating conditions return. You may also want to plug the unit into a different wall outlet, as dropping power line voltage will be most noticeable under strenuous conditions and may result in the unit shutting down intermittently.

#### TROUBLESHOOTING AND SERVICE

Before seeking service for your amplifier or subwoofer, please re-check all systems. Following is a simple troubleshooting guide to assist you.

- 1. Verify that the unit is plugged in and power outlet used is active.
- 2. Is the power switch on?
- 3. Is the unit receiving an input signal from your source?
- 4. Have all controls (volume, crossover, phase, etc.) been properly set?
- 5. If the unit has been running at high levels, one of the protection circuits may be engaged. Has the amplifier overheated?
- 6. Has the power button been depressed on the remote?
- 7. Make sure binding posts are tightened.
- 8. Is the remote non-responsive? We recommend replacing the batteries in the remote.

If the protection circuitry is active, the unit may cycle on and off until operating parameters return to normal. Under more serious conditions, the unit may shut off completely. Normal operation should return upon cooling, but you may be required to turn the power off and then on again to reset the unit.

The following conditions require service by a qualified technician:

- 1. The power cord has become damaged
- 2. The unit does not appear to operate normally or exhibits a marked change in performance
- 3. The unit has been exposed to water
- 4. Some part of the chassis or circuitry is physically damaged

Thank You for Purchasing a Velodyne!

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## SPECIFICATIONS

SPECIFICATIONS	VDR-10	VDR-12	
Woofer	10" (24.5 cm) forward firing (8.2" piston diameter) with vented pole piece	12" (30.5 cm) forward firing (9.7" piston diameter) with vented pole piece	
Amplifier: Class D	200 watts Dynamic/ 400 watts RMS Power	200 watts Dynamic/ 400 watts RMS Power	
Cabinet Design	Slot-loaded Bass-reflex	Slot-loaded Bass-reflex	
Frequency Response	28 -120 Hz (+/-3 dB)	25 - 120 Hz (+/-3 dB)	
Voice Coil	2" 4-layer copper	2" 4-layer copper	
Cone	Reinforced Fiber	Reinforced Fiber	
Magnet Structure	40 oz. (2.5 lbs)	56 oz. (3.5 lbs)	
High-Pass Crossover	80 or 100 Hz (6 dB/octave slope)	80 or 100 Hz (6 dB/octave slope)	
Low-Pass Crossover	60 - 150 Hz (12 dB octave, 24 dB ultimate)	60 - 150 Hz (12 dB octave, 24 dB ultimate)	
Outputs	Line-level and Speaker-level	Line-level and Speaker-level	
Inputs	Gold plated Line-level and Speaker-level	Gold plated Line-level and Speaker-level	
Phase	0°, 90°, 180°, 270°	0°, 90°, 180°, 270°	
Auto On/Off	Yes	Yes	
Removable Grill	Yes	Yes	
Video Shielding	Yes	Yes	
LED Power Indicator	Yes	Yes	
Input Impedance	65K ohm (for LINE INPUT jacks) 1.2K ohm (for SPEAKER LEVEL INPUT terminals)		
Sensitivity Speaker-Level Line	1.0V 100 mV	1.0V 100 mV	
Power Supply	120V, 60 Hz AC	120V, 60 Hz AC	
Cabinet (H,W,D) (cm) with grille	15.9" x 15" x 16.8" 40.4 x 38 x 42.7	18" x 15" x 18" 45.7 x 38 x 45.7	
Warranty (parts/labor)	Three years (electronics - parts and labor) Five years (drivers - parts and labor)		
Shipping Weight (approx.)	54 lbs. (24.5 Kgs)	60 lbs. (27.3 Kgs)	

Specifications are subject to change without notice.

# VELODYNE PRODUCTS

# <u>115 - 120V</u>

DD® Series	<u>Optimum Series</u>	DD® Series	SPLi Series
DD-10	Optimum-8	DD-10	SPL-800i
DD-12	Optimum-10	DD-12	SPL-1000i
DD-15	Optimum-12	DD-15	
DD-18		DD-18	SPL-Ultra Series
Digital Drive 1812	SMS™-1	Digital Drive 1812	SPL-800 Ultra
Signature Edition		Signature Edition	SPL-1000 Ultra
DEO D C	SubContractor <sup>™</sup>	OUT O Carria	SPL-1200 Ultra
DEQ-R Series	<u>Series</u>	CHT-Q Series	
DEQ-8R	SC-1250	CHT-8Q	SubContractor™
DEQ-10R	SC-10	CHT-10Q	<u>Series</u>
DEQ-12R	SC-12	CHT-12Q	SC-1250
DEQ-15R	SC-15	CHT-15Q	SC-10
	SC-IW		SC-12
DLS™-R Series	SC-IF/IC	<u>Impact Series</u>	SC-15
DLS-3500R	SC-600 Amp	Impact-Mini	SC-IW
DLS-3750R	SC-600 IW	Impact-10	SC-IF/IC
DLS-4000R	SC-600 IF/IC	Impact-12	SC-600 Amp
DLS-5000R			SC-600 IW
	<b>VDR Series</b>	MicroVee™	SC-600 IF/IC
<u>Impact Series</u>	VDR-10		
Impact-Mini	VDR-12	SMS™-1	VX-10 Series II
Impact-10			
Impact-12	VMS-8		
MicroVee™	<b>VX Series</b> VX-10 <sup>®</sup>		
MiniVee <sup>®</sup> MiniVee <sup>®</sup> 10			

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<u> 220 - 240V</u>

FOR YOUR RECORDS	
Date Purchased	_
Dealer	
Serial #	

\*NOTE: Please complete and return your warranty card within ten (10) days or

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#### LIMITED WARRANTY - U.S. AND CANADA ONLY

VELODYNE ACOUSTICS, Inc. ("VELODYNE") warrants all electronics for a period of three years, drivers for a period of five years, and full range speakers for a period of five years. All VELODYNE products have a warranty from the date of purchase against defects in materials and workmanship subject to the following conditions:

- VELODYNE is not responsible for defects which result from the use of an amplifier or controller other than
  the one originally supplied with the unit (subwoofer) or defects which result from modifications or repairs
  made by any component of the system by anyone other than a VELODYNE factory authorized
  service representative.
- 2. This warranty is void if any repairs or service covered by the terms of this warranty are made to any component of the system by anyone other than a VELODYNE factory authorized service representative.
- 3. VELODYNE is not responsible for damage caused by accidents, abuse, misuse, natural or personal disaster or unauthorized modification. The VELODYNE products are not intended for professional or commercial use and VELODYNE is not responsible for damage resulting from such use.
- 4. The VELODYNE product warranty is limited to units that are purchased from authorized VELODYNE dealers and finalized within authorized dealer locations.
- 5. This warranty is nontransferable under any condition.
- 6. Use of this product outside the U.S. and Canada voids this warranty.

#### **TO OBTAIN SERVICE**

Information regarding service may be obtained from the dealer from whom you purchased the unit, or by contacting VELODYNE customer service. Warranty service must be performed by a VELODYNE factory authorized service representative within the warranty period set forth above. If VELODYNE determines the unit is defective, VELODYNE will, at VELODYNE's option, repair or replace the product at no charge if the product is forwarded prepaid to a factory authorized service representative. Products forwarded to the factory authorized service representative should be shipped securely and properly packaged, insured and freight prepaid.

#### WARRANTY OUTSIDE THE UNITED STATES AND CANADA

The Warranty of this product if it is sold to a consumer outside of the United States or Canada shall comply with applicable law and shall be the sole responsibility of the distributor that supplied this product. To obtain any applicable warranty service, please contact the dealer from which you purchased this product, or the distributor that supplied this product.

#### Velodyne Acoustics, Inc.

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